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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,157

12/04/2003

Harold Robert Schnetzka

20712-0065

6783

65885 7590 01/22/2007
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EXAMINER

VIDAYATHIL, TRESA V

ART UNIT

PAPER NUMBER

3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/728,157

Applicant(s)

SCHNETZKA ET AL.

Examiner

Tresa V. Vidayathil

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/4/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because:
 - a. The specification indicates that compressor 12 discharges gas into discharge line 24 (p. 4, para. 13, ll. 5-6), and Fig. 1 indicates that compressor 12 discharges gas into discharge line 22.
 - b. The specification indicates that compressor 14 discharges gas into discharge line 22 (p. 4, para. 13, ll. 6-7), and Fig. 1 indicates that compressor 14 discharges gas into discharge line 24.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "sensing means for sensing the rotational speed and the phase of operation of each of the two compressors," cl. 1(c), must be shown or the feature(s) canceled from the claim(s). Currently, the description only indicates that sensors 48 and 50 monitor refrigerant gas parameters, such as pressure pulses (p. 4, para. 13, ll. 9-10). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
 - a. The specification indicates that compressor 12 discharges gas into discharge line 24 (p. 4, para. 13, ll. 5-6), and Fig. 1 indicates that compressor 12 discharges gas into discharge line 22.
 - b. The specification indicates that compressor 14 discharges gas into discharge line 22 (p. 4, para. 13, ll. 6-7), and Fig. 1 indicates that compressor 14 discharges gas into discharge line 24.
 - c. Speed control signal 48 should be changed to speed control signal 47 (p. 5, l. 2).
 - d. Variable speed drive 43 should be changed to variable speed drive 44 (p. 6, para. 16, l. 9).

- e. Sensor 50 should be changed to sensor 48 (p. 7, para. 19, l. 4).

Appropriate correction is required.

Claim Objections

4. Claims 2 and 3 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 claims a higher composite pressure pulse frequency. Claim 3 claims a higher composite pressure pulse frequency that is a multiple of the reference compressor frequency and the number of compressors in the system. Because claim 1 claims pressure pulses of the non-reference compressors as substantially evenly spaced between the reference compressor pulses, the composite pressure pulse frequency of claim 1 is inherently higher and a multiple of the reference compressor frequency and the number of compressors in the system. Therefore, neither claims 2 nor 3 further limit claim 1.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1 and 5 claim a sensing means for sensing the rotational speed and the phase of operation of each of the compressors. The specification discloses a sensor or sensing means for sensing the rotational speed and the phase of operation of each of the compressors (pg. 3, ll. 3-4 and pg 3, para. 7, ll. 6-7). The specification also discloses sensors monitoring refrigerant gas parameters, such as pressure pulses (pg. 4, para. 13, ll. 9-10). It is not clear how the system is sensing the rotational speed and phase as claimed. Instead, it seems more likely that the system is sensing the pressure and calculating the rotational speed and phase of operation of the compressors.

In addition, claims 1 and 5 claim that the means of control used to control the phase of operation so that the outlet pressure pulse operatively produced by each of the remaining of the at least two compressors is substantially evenly spaced between successive outlet pulses operatively produced by the reference compressor. It is not disclosed in the specification how the phase of operation is controlled or shifted to produce the claimed result.

For the above reasons, claims 1-7 are not enabled.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-4 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 recites the limitation "the two compressors" in part c, I. 2. There is insufficient antecedent basis for this limitation in the claim because the prior limitation is "at least two compressors." To overcome this rejection, the applicant may change "the two compressors" to "the at least two compressors."

10. Claim 7 recites the limitation "the at least one compressors" in II. 1-2. There is insufficient antecedent basis for this limitation in the claim because the prior limitation is "at least two compressors." To overcome this rejection, the applicant may change "the at least one compressors" to "the at least two compressors."

11. The condition of the disclosure and claims prevented the application of prior art, see rejection under 35 U.S.C 112, 1st paragraph above. However, to the extent that the invention as disclosed could be understood, a search was carried out, and relevant prior art is cited on PTO Form 892. The lack of a rejection over prior art should not be interpreted as an indication that the application has allowable subject matter.

Conclusion

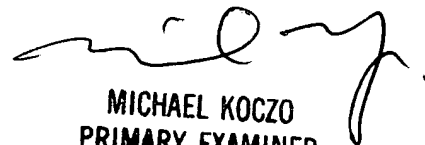
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tresa V. Vidayathil whose telephone number is (571) 272-3436. The examiner can normally be reached on 9AM - 5:30PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Tresa V. Vidayathil

1/10/07


MICHAEL KOCZO
PRIMARY EXAMINER
TC 3746